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**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Application Number: 10/058,175
Filing Date: January 29, 2002
Appellant(s): MAHOWALD ET AL.

Brian M. Buroker
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 11 April 2007 appealing from the Office action mailed 19 October 2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claims 1, 2, 4-8, 10-14, and 16-18.

Claims 3, 9, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

**WITHDRAWN REJECTIONS**

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner.

A) Rejection of claims 1-6 under 35 U.S.C. 101.

B) Rejection of claims 3, 9, and 15 under 35 U.S.C. 103(a).

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

| | | |
|---|---|---|
| 6,449,496 | BEITH et al. | 9-2002 |
| 6,269,336 | LADD et al. | 7-2001 |

Motorola, "VoxML 1.1 Language Reference", April 1999, Available: http://www.w3.org/Voice/1999/VoxML.pdf.

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 7-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 7-12 are directed to "An active voice page in a computer readable medium". An "active voice page" is not a statutory category of invention, even if claimed as being "in" a computer readable medium. This is because the claimed invention is

directed to the voice page itself (i.e. programming code of the page) rather than the computer readable medium (which may be statutory). In contrast, a claimed "Computer readable medium comprising a voice page" may be statutory if the utility requirements of 35 U.S.C. 101 are met.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1 and 7 are directed to "A computer-readable storage medium comprising code programmed in a markup language" and "An active voice page in a computer-readable storage medium", respectively. The "computer-readable storage medium" language was added to overcome a rejection under 35 U.S.C. 101 made in the previous Office Action. However a review of the specification indicates that there is no clear support for computer readable storage mediums. While the specification recites "markup languages" and "active voice pages" there is no clear disclosure of an embodiment of those markup languages and active voice pages encoded in a computer readable storage medium.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As indicated above, there is no clear disclosure of an embodiment of the invention wherein markup languages or voice pages which are encoded in computer readable storage mediums. Therefore, the metes and bounds of the claimed computer readable storage medium cannot be determined from the disclosure as a whole.

Furthermore, with respect to claims 2-6, while claim 1 is now directed to "A computer-readable storage medium" claims 2-6 refer to "The markup language of claim 1". Therefore, this raises question as to whether claim 1 is directed to the storage medium (which is statutory with respect to 35 U.S.C. 101), or simply to the markup language itself (which is non-statutory with respect to 35 U.S.C. 101).

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 4, 5, 7, 8, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motorola (*VoxML 1.1 Language Reference*), in view of Beith et al. (U.S. Patent 6,449,496).

In regard to claims 1 and 7, Motorola discloses a markup language (VoxML) for facilitating voice-enabled communication between a voice service system and an individual and an active voice page comprising:

a hierarchical set of functional elements that define the capabilities of the markup language (page 2, Structure of a VoxML Document, lines 1-2), comprising:

a dialog element contained within a container element that defines a unit of interaction between the voice service system and an individual (page 46, the STEP element defines a state in a VoxML application when interacting content with a user; the STEP element is contained within the DIALOG element, see page 46 and page 2, paragraphs 2-4);

an input element contained in the dialog element and operative to request from an individual during execution of a voice service (STEP element has an associated PROMPT element to present a request to a user, and an INPUT element to define the valid user input, page 46, STEP element, lines 1-3; page 19, INPUT element, lines 1-3; and page 40, PROMPT element, lines 1-2);

whereby one or more of the elements are arranged to define a voice service (interactive speech application, page 1, What is VoxML?).

Motorola additionally discloses that it is sometimes necessary to double check some information that a user has provided in a voice service environment and that

providing an element to confirm the user input is easier for the developer (page 5, ACK element, lines 1-5).

Motorola does not disclose an n-best list filter element to request verification from a list of possible matches and do not disclose a computer readable storage medium.

Beith et al. disclose a method for requesting verification from a list of possible matches for an audibly-uttered user response (Fig. 7B, if multiple recognition results match, the method cycles through the best matches to see if the user verifies one of the recognition results in step 336, column 9, line 66 through column 10, lines 12-15). Beith et al. further disclose a computer readable storage medium (column 1, lines 61-63).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Motorola so that the ACK element requested user verification for a list of possible matches using the method disclosed by Beith et al., because such feedback greatly improves the accuracy and increases the user confidence in the system. Further, it would have been obvious to one of ordinary skill in the art at the time of invention to encode the markup language on a computer readable storage medium, because this would allow the markup language to be implemented as taught by Beith et al. (column 1, lines 12-15).

In regard to claims 2 and 8, the method disclosed by Beith et al. used in the combination of Motorola and Beith et al., as applied to claims 1 and 7, above, operates to cause a processing system to generate a list of possible matches for a received

audible utterance (multiple name matches are sorted, Beith et al., column 9, lines 66-67).

In regard to claims 4 and 10, Motorola discloses that the acknowledgement element comprises an expression attribute (page 5, Examples, in line 11 of the example code, the VALUE NAME="type" specifies the answer given in the input element, lines 5-9 of the example, is to be verified).

In regard to claims 5 and 11, the method disclosed by Beith et al. used in the combination of Motorola and Beith et al., as applied to claims 1 and 7, above, specifies a loop to go through the list of possible matches for the utterance (when the user replies "no", the next best match is retrieved and presented to the user until all possible matches have been presented, Beith et al., column 10, lines 5-9).

Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motorola in view of Beith et al., and further in view of Applicant's Admitted Prior Art.

In regard to claims 6 and 12, neither Motorola nor Beith et al. disclose that an error announcement is made to announce when a match is not found.

The Applicant's admitted prior art discloses it is notoriously well known and recognized in the art to provide the user with an announcement that no match has been found, such as "I did not understand" or requesting the user to repeat the utterance, so

the user can confirm whether the action associated with the utterance has been properly executed or not.

It would have been obvious to one of ordinary skill in the art at the time of invention to further modify the combination of Motorola and Beith et al. to announce that no match was found, because it is a widely appreciated and applied technique to supply feedback when a command is not understood.

Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motorola, in view Beith et al., and further in view of Ladd et al. (U.S. Patent 6,269,336).

In regard to claim 13, Motorola discloses an XML-based page comprising (page 1, What is VoxML?, line 1):

at least one dialog element contained within a container element comprising content for delivery to an identified user during an interactive voice broadcast (page 46, the STEP element defines a state in a VoxML application when interacting content with a user; the STEP element is contained within the DIALOG element, see page 46 and page 2, paragraphs 2-4);

at least one input element contained within the at least one dialog element, the at least one input element defining input to be received from the identified user during the interactive voice broadcast (STEP element has an associated PROMPT element to present a request to a user, and an INPUT element to define the valid user input, page 46, STEP element, lines 1-3; page 19, INPUT element, lines 1-3; and page 40, PROMPT element, lines 1-2);

Motorola additionally discloses that it is sometimes necessary to double check some information that a user has provided in a voice service environment and that providing an element to confirm the user input is easier for the developer (page 5, ACK element, lines 1-5).

Motorola does not disclose an n-best list filter element to request verification from a list of possible matches and do not disclose a computer readable storage medium.

Beith et al. disclose a method for requesting verification from a list of possible matches for an audibly-uttered user response (Fig. 7B, if multiple recognition results match, the method cycles through the best matches to see if the user verifies one of the recognition results in step 336, column 9, lines 66-67 and column 10, lines 12-15). Beith et al. further disclose a computer readable storage medium (column 1, lines 61-63).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Motorola so that the ACK element requested user verification for a list of possible matches using the method disclosed by Beith et al., because such feedback greatly improves the accuracy and increases the user confidence in the system. Further, it would have been obvious to one of ordinary skill in the art at the time of invention to encode the markup language on a computer readable storage medium, because this would allow the markup language to be implemented as taught by Beith et al. (column 1, lines 12-15).

Neither Motorola nor Beith et al. disclose that the XML-based page is executed in a call server.

Ladd et al. disclose a call server (Fig. 3, communication 212) that engages a user in a dialog based on the content of VoxML voice pages (column 6, lines 13-24).

It would have been obvious to one of ordinary skill in the art at the time of invention to execute the voice pages created by the combination of Motorola and Beith et al. on a call server as disclosed by Ladd et al. because call servers enable user to access information from any location in the world using voice inputs, as taught by Ladd et al. (column 2, lines 40-43 and lines 48-49).

In regard to claim 14, the method disclosed by Beith et al. used in the combination of Motorola, Beith et al., and Ladd et al., as applied to claim 13, above, operates to cause a processing system to generate a list of possible matches for a received audible utterance (multiple name matches are sorted, Beith et al., column 9, lines 66-67).

In regard to claim 16, Motorola discloses that the acknowledgement element comprises an expression attribute (page 5, Examples, in line 11 of the example code, the VALUE NAME="type" specifies that the answer given in the input element, lines 5-9 of the example, is to be verified).

In regard to claim 17, the method disclosed by Beith et al. used in the combination of Motorola, Beith et al., and Ladd et al., as applied to claim 13, above, specifies a loop to go through the list of possible matches for the utterance (when the

user replies "no", the next best match is retrieved and presented to the user until all possible matches have been presented, Beith et al., column 10, lines 5-9).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Motorola, in view of Beith et al., in further view of Ladd et al., and further in view of Applicant's Admitted Prior Art.

In regard to claim 18, Motorola, Beith et al., and Ladd et al. do not disclose that an error announcement is made to announce when a match is not found.

The Applicant's admitted prior art discloses it is notoriously well known and recognized in the art to provide the user with an announcement that no match has been found, such as "I did not understand" or requesting the user to repeat the utterance, so the user can confirm whether the action associated with the utterance has been properly executed or not.

It would have been obvious to one of ordinary skill in the art at the time of invention to further modify the combination of Motorola and Beith et al. to announce that no match was found, because it is a widely appreciated and applied technique to supply feedback when a command is not understood.

**(10) Response to Argument**

**A. Rejection of Claims 7-12 Under 35 U.S.C. 101**

As noted above, the rejections of claims 1-6 under 35 U.S.C. 101 have been withdrawn. Furthermore, the rationale for supporting the rejection of claims 7-12 has

been modified. As outlined above, Claims 7-12 are directed to "An active voice page in a computer readable medium". An "active voice page" is not a statutory category of invention, even if claimed as being "in" a computer readable medium. This is because the claimed invention is directed to the voice page itself (i.e. programming code of the page) rather than the computer readable medium (which may be statutory). In contrast, a claimed "Computer readable medium comprising a voice page" may be statutory if the utility requirements of 35 U.S.C. 101 are met.

**B. Rejection of Claims 1 and 7 Under 35 U.S.C. 112, first paragraph**

Applicant argues that the claimed "computer-readable storage medium" language added to claims 1 and 7 after the rejection mailed 31 March 2006 is supported a points to page 2 of the specification. The recitation that markup languages can be "adapted to enable systems to communicate" does not indicate that the means for doing so is to store the markup language in a computer-readable storage medium. Furthermore, the argument that one of ordinary skill in the art at the time of invention would understand that a markup language may be used in a computer-readable storage medium, this does not indicate that such an embodiment is disclosed in the specification as filed. The disclosure of a "system" such as a server is not the disclosure of a computer-readable storage medium. At no point in the specification is a computer-readable storage medium disclosed, nor are any examples of computer-readable storage mediums (such as CD-ROMs, hard drives etc.) encoded with a markup language disclosed.

**C. Rejection of Claims 1-6 Under 35 U.S.C. 112, second paragraph**

Claim 1 is directed to "A computer-readable storage medium" while claims 2-6 (which depend from claim 1) are directed to "The markup language of claim 1". This raises the question as to what exactly the Applicant is attempting to claim in claim 1. Because there is a conflict in the claimed subject matter between claim 1 and dependent claims 2-6, claims 1-6 are indefinite.

**D. Rejection of Claims 1, 2, 4, 5 and 7, 8, 10, and 11 Under 35 U.S.C. 103(a)**

Regarding claims 1 and 7, Applicant argues that the disclosure of a method for requesting verification from a list is "not the same as an n-best filter element recited in the claims". However, the claims define an "n-best filter element" as *operative to request verification from a list of possible matches for an audibly-uttered user response.* Equivalently, Beith et al. disclose a method for requesting verification from a list of possible matches for an audibly-uttered user response (Fig. 7B, if multiple recognition results match, the method cycles through the best matches to see if the user verifies one of the recognition results in step 336, column 9, line 66 through column 10, lines 12-15). Though the method disclosed by Beith is not encapsulated as an "element" in a markup language, VoxML discloses this aspect of the limitation. One of ordinary skill in the art at the time of invention would therefore combine the teachings of VoxML and Beith to create an "n-best filter element" that would be operative to request verification from a list of possible matches for an audibly-uttered user response.

As to whether on of ordinary skill in the art at the time of invention would be motivated to combine VoxML and Beith, the Applicant attacks the motivational statement provided by the Examiner and supported by submitted pertinent prior art (the Balentine reference), because the Balentine reference was not "relied upon". However, there is no requirement that the motivation to combine two references come directly from the relied upon prior art. Rather, the motivation may come from "the nature of the problem to be solved... or the knowledge of persons of ordinary skill in the art" (MPEP 2143.01). Clearly, the submission of Balentine as pertinent prior art is evidence that persons of ordinary skill in the art would recognize the advantages of combining VoxML and Beith (i.e. greater accuracy and user confidence in the system).

Applicants arguments with respect to claims 2, 4-6, 8, and 10-11 amount to a mere allegation of patentability, and will not be further addressed herein.

**E. Rejection of Claims 6 and 12 Under 35 U.S.C. 103(a)**

Regarding applicant's assertion that AAPA "does not disclose the recitation alleged by the Office" with respect to claims 6 and 12 (see page 9, 1st paragraph), the Applicant is again directed to MPEP 2144.03. In particular, MPEP 2144.03 states "To adequately traverse such a finding, an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art". Upon use of Official Notice in the first action on the merits (mail date 2 February 2005), the Applicant

had an opportunity to request evidence in support of the Official Notice statement. However, the applicant's response (received 5 July 2005) contained no such request. Thus, absent a traversal of the Official Notice statement, "the examiner should clearly indicate in the next Office action that the common knowledge or well-known in the art statement is taken to be admitted prior art because applicant either failed to traverse the examiner's assertion of official notice or that the traverse was inadequate". Therefore, the assertions presented with respect to claims 6 and 12 are supported by the AAPA.

**F. Rejection of Claims 13, 14, 16, and 17 Under 35 U.S.C. 103(a)**

First, it should be noted that the rationale for supporting the rejection of claim 13 under 35 U.S.C. has been modified slightly from the Final Rejection mailed 19 October 2006, due to Applicant's arguments first presented in the Appeal Brief. Specifically, Applicant has asserted VoxML do not disclose a dialog which is "contained within a container element". Upon further consideration, the Examiner has equated the STEP element disclosed by VoxML (page 46) as meeting the claimed "dialog element comprising content for delivery to an identified user during an interactive voice broadcast". Further, VoxML discloses that the STEP element is contained within the DIALOG element of VoxML (page 2).

Applicant argues that the disclosure of a method for requesting verification from a list is "not the same as an n-best filter element recited in the claims". However, the claims define an "n-best filter element" as *operative to request verification from a list of*

*possible matches for an audibly-uttered user response*. Equivalently, Beith et al. disclose a method for requesting verification from a list of possible matches for an audibly-uttered user response (Fig. 7B, if multiple recognition results match, the method cycles through the best matches to see if the user verifies one of the recognition results in step 336, column 9, line 66 through column 10, lines 12-15). Though the method disclosed by Beith is not encapsulated as an "element" in a markup language, VoxML discloses this aspect of the limitation. One of ordinary skill in the art at the time of invention would therefore combine the teachings of VoxML and Beith to create an "n-best filter element" that would be operative to request verification from a list of possible matches for an audibly-uttered user response.

With regard to the addition of Ladd et al. to meet the "call server" limitation of claim 13, Applicant asserts that Ladd et al. do not disclose the call server "receives input from the user, and prompts the user to verify possible matches for audibly-uttered user responses that are not understood based on the XML-based page contents". However, the combination of VoxML and Beith provide a XML based page that, when executed, receives input from the user, and prompts the user to verify possible matches for audibly-uttered user responses that are not understood. Therefore, the when the VoxML server disclosed by Ladd et al. executed the XML-based page contents disclosed by the combination of VoxML and Beith, the call server would necessarily perform the actions of receiving input from the user, and prompting the user to verify possible matches for audibly-uttered user responses that were not understood based on the XML-based page contents.

Regarding the motivation to combine VoxML, Beith, and Ladd et al., the statement that call servers "enable the user to access information from any location in the world using voice inputs" was not concerned with the combination of VoxML and Beith, but provided to as motivation to execute the pages of VoxML and Beith on a call server as disclosed by Ladd et al. Applicant does not address the motivation to combine Ladd et al., but repeats the assertion that VoxML and Beith should not be combined.

As noted above with respect to claims 1 and 7, there is no requirement that the motivation to combine two references come directly from the relied upon prior art. Rather, the motivation may come from "the nature of the problem to be solved... or the knowledge of persons of ordinary skill in the art" (MPEP 2143.01). Clearly, the submission of Balentine as pertinent prior art is evidence that persons of ordinary skill in the art would recognize the advantages of combining VoxML and Beith (i.e. greater accuracy and user confidence in the system).

Applicant's arguments with respect to claims 14, 16, and 17 amount to a mere allegation of patentability, and will not be further addressed herein.

**G. Rejection of Claim 18 Under 35 U.S.C. 103(a)**

Regarding applicant's assertion that AAPA "does not disclose the recitation alleged by the Office" with respect to claims 6 and 12 (see page 9, 1st paragraph), the Applicant is again directed to MPEP 2144.03. In particular, MPEP 2144.03 states "To

adequately traverse such a finding, an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art". Upon use of Official Notice in the first action on the merits (mail date 2 February 2005), the Applicant had an opportunity to request evidence in support of the Official Notice statement. However, the applicant's response (received 5 July 2005) contained no such request. Thus, absent a traversal of the Official Notice statement, "the examiner should clearly indicate in the next Office action that the common knowledge or well-known in the art statement is taken to be admitted prior art because applicant either failed to traverse the examiner's assertion of official notice or that the traverse was inadequate". Therefore, the assertions presented with respect to claims 6 and 12 are supported by the AAPA.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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